



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2020-0208; Product Identifier 2019-NM-209-AD;

Amendment 39-21177; AD 2020-15-14]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is superseding Airworthiness Directive (AD) 2015-13-06, which applied to certain The Boeing Company Model 747-400 and 747-400F series airplanes. AD 2015-13-06 required repetitive inspections of the longeron extension fittings for cracking; repetitive high frequency eddy current (HFEC) inspections of any modified, repaired, or replaced longeron extension fitting for cracking; and applicable on-condition actions. This AD retains the requirements of AD 2015-13-06. This AD also requires, for certain additional airplanes, repetitive inspections of the longeron extension fittings for cracking and repair if necessary. This AD was prompted by the FAA's determination that additional airplanes are affected by the identified unsafe condition. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For service information identified in this final rule, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminister Blvd., MC 110-SK57, Seal Beach, CA 90740-5600; phone: 562-797-1717; Internet: <https://www.myboeingfleet.com>. You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-0208.

Examining the AD Docket

You may examine the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-0208; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Eric Lin, Aerospace Engineer, Airframe Section, FAA, Seattle ACO Branch, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3523; email: eric.lin@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 2015-13-06, Amendment 39-18193 (80 FR 44835, July 28, 2015) (“AD 2015-13-06”). AD 2015-13-06 applied to certain The Boeing Company Model 747-400 and 747-400F series airplanes. The NPRM published in the Federal Register on March 30, 2020 (85 FR 17510). The NPRM was prompted by a report that an operator found a cracked longeron extension fitting on an airplane not included in the applicability of AD 2015-13-06. The NPRM proposed to continue to require repetitive inspections of the longeron extension fittings for cracking; repetitive HFEC inspections of any modified, repaired, or replaced longeron extension fitting for cracking; and applicable on-condition actions. The NPRM also proposed to add Model 747-100, 747-100B, 747-100B SUD, 747-200B, 747-200C, 747-200F, 747-300, 747-400D, 747SR, and 747SP series airplanes to the applicability, and for those additional airplanes, repetitive inspections of the longeron extension fittings for cracking and repair if necessary. The FAA is issuing this AD to address cracks in the longeron extension fittings, which can become large and adversely affect the structural integrity of the airplane.

Comments

The FAA gave the public the opportunity to participate in developing this AD. The following presents the comments received on the NPRM and the FAA’s response to each comment.

Support for the NPRM

Boeing stated that it had no comment regarding the NPRM and Hasan Ashour expressed support for the NPRM.

Request to Expand the Applicability of the NPRM

Addison Hull requested that the FAA expand the applicability of the NPRM to include all airplanes. The commenter expressed concern that the NPRM only identified 67 affected airplanes. The commenter also pointed out their belief that all airplanes should have the same minimum requirements, and that this method would be more efficient compared with publishing specific rules to mandate the inspection and maintenance of other types of airplanes that are not affected by the NPRM.

The FAA disagrees with the request. The FAA issues ADs to address potential unsafe conditions in airplanes with similar designs. The FAA has worked closely with the design approval holder (DAH) to determine the group of affected airplanes that may develop this particular unsafe condition. The group of affected airplanes for this particular unsafe condition is an expansion to the group of airplanes addressed by AD 2015-13-06. Therefore, the FAA believes that the entire number of affected airplanes have been captured by this AD. This AD has not been changed in this regard.

Conclusion

The FAA reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting this AD as proposed, except for minor editorial changes. The FAA has determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for addressing the unsafe condition; and

- Do not add any additional burden upon the public than was already proposed in the NPRM.

Related Service Information under 1 CFR Part 51

The FAA reviewed Boeing Service Bulletin 747-53A2860, Revision 3, dated November 11, 2019. This service information describes procedures for repetitive inspections of the longeron extension fittings for cracking; repetitive HFEC inspections of any modified, repaired, or replaced longeron extension fitting for cracking; and applicable on-condition actions. On-condition actions include replacement, repair, and modification. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Costs of Compliance

The FAA estimates that this AD affects 67 airplanes of U.S. registry. The FAA estimates the following costs to comply with this AD:

Estimated costs for required actions

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
HFEC inspection (retained actions from AD 2015-13-06) (41 airplanes)	32 work-hours X \$85 per hour = \$2,720 per inspection cycle	\$0	\$2,720 per inspection cycle	\$111,520 per inspection cycle
HFEC inspection (new action) (26 airplanes)	32 work-hours X \$85 per hour = \$2,720 per inspection cycle	\$0	\$2,720 per inspection cycle	\$70,720 per inspection cycle

The FAA estimates the following costs to do any necessary on-condition actions that would be required. The FAA has no way of determining the number of aircraft that might need these on-condition actions:

Estimated costs of on-condition costs

Action	Labor cost	Parts cost	Cost per product
Replacement, repair, modification, or preventative modification	Up to 908 work-hours X \$85 per hour = Up to \$77,180	Up to \$99,950	Up to \$177,130

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

The FAA has determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on

the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

(1) Is not a “significant regulatory action” under Executive Order 12866,

(2) Will not affect intrastate aviation in Alaska, and

(3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by removing Airworthiness Directive (AD) 2015-13-06, Amendment 39-18193 (80 FR 44835, July 28, 2015), and adding the following new AD:

2020-15-14 The Boeing Company: Amendment 39-21177; Docket

No. FAA-2020-0208; Product Identifier 2019-NM-209-AD.

(a) Effective Date

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD replaces AD 2015-13-06, Amendment 39-18193 (80 FR 44835, July 28, 2015) (“AD 2015-13-06”).

(c) Applicability

This AD applies to The Boeing Company Model 747-100, 747-100B, 747-100B SUD, 747-200B, 747-200C, 747-200F, 747-300, 747-400, 747-400D, 747-400F, 747SR, and 747SP series airplanes, certificated in any category, as identified in Boeing Service Bulletin 747-53A2860, Revision 3, dated November 11, 2019.

(d) Subject

Air Transport Association (ATA) of America Code 53, Fuselage.

(e) Unsafe Condition

This AD was prompted by reports of cracking in the outboard flange of the longeron extension fittings and the FAA’s determination that additional airplanes are affected by the identified unsafe condition. The FAA is issuing this AD to address cracks in the longeron extension fittings, which can become large and adversely affect the structural integrity of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions

Except as specified by paragraph (h) of this AD: At the applicable times specified in paragraph 1.E., “Compliance,” of Boeing Service Bulletin 747-53A2860, Revision 3, dated November 11, 2019, do all applicable actions identified in, and in accordance with, the Accomplishment Instructions of Boeing Service Bulletin 747-53A2860, Revision 3, dated November 11, 2019.

(h) Exceptions to Service Information Specifications

(1) Where Boeing Service Bulletin 747-53A2860, Revision 3, dated November 11, 2019, uses the phrase “the Revision 3 date of this service bulletin,” this AD requires using “the effective date of this AD.”

(2) Where Boeing Service Bulletin 747-53A2860, Revision 3, dated November 11, 2019, specifies contacting Boeing for repair instructions: This AD requires doing the repair using a method approved in accordance with the procedures specified in paragraph (j) of this AD.

(i) Credit for Previous Actions

(1) This paragraph provides credit for the actions required by paragraph (g) of this AD, if those actions were performed before the effective date of this AD using Boeing Alert Service Bulletin 747-53A2860, Revision 1, dated March 18, 2014, which was incorporated by reference in AD 2015-13-06; or Boeing Service Bulletin 747-53A2860, Revision 2, dated July 12, 2016, which is not incorporated by reference in this AD.

(2) This paragraph provides credit for the repetitive inspections, and inspection of temporary repair and corrective actions required by paragraph (g) of this AD, if those actions were performed before September 1, 2015 (the effective date of AD 2015-13-06) using Boeing Alert Service Bulletin 747-53A2860, dated December 4, 2012, which was incorporated by reference in AD 2013-14-05, Amendment 39-17510 (78 FR 43763, July 22, 2013).

(j) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Seattle ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local

Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (k)(1) of this AD. Information may be emailed to: 9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(3) An AMOC that provides an acceptable level of safety may be used for any repair, modification, or alteration required by this AD if it is approved by The Boeing Company Organization Designation Authorization (ODA) that has been authorized by the Manager, Seattle ACO Branch, FAA, to make those findings. To be approved, the repair method, modification deviation, or alteration deviation must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

(4) AMOCs approved previously for the actions specified in paragraphs (g), (h), (i), and (j) of AD 2015-13-06 are approved as AMOCs for the corresponding provisions of Boeing Service Bulletin 747-53A2860, Revision 3, dated November 11, 2019, that are required by paragraph (g) of this AD.

(k) Related Information

(1) For more information about this AD, contact Eric Lin, Aerospace Engineer, Airframe Section, FAA, Seattle ACO Branch, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3523; email: eric.lin@faa.gov.

(2) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (l)(3) and (4) of this AD.

(I) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Boeing Service Bulletin 747-53A2860, Revision 3, dated November 11, 2019.

(ii) [Reserved]

(3) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminister Blvd., MC 110-SK57, Seal Beach, CA 90740-5600; phone: 562-797-1717; Internet: <https://www.myboeingfleet.com>.

(4) You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email fedreg.legal@nara.gov, or go to: <https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued on July 16, 2020.

Lance T. Gant, Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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